

The only Windows®-compatible 64-bit PC Processor.



AMD Athlon™ 64 processor overview

The AMD Athlon 64 processor is the first and only Windows®-compatible 64-bit PC processor. The AMD Athlon 64 processor runs on AMD64, a revolutionary technology that allows the processor to run 32-bit applications at full speed while enabling a new generation of powerful 64-bit software applications. Advanced 64-bit operating systems for the AMD64 platform from Microsoft®, Red Hat, SuSE, and TurboLinux have already been announced, and they only run on processors with AMD64 technology.

With the introduction of the AMD Athlon 64 processor, AMD provides customers a solution that can address their current and future computing needs. As the first desktop PC processor to run on the AMD64 platform, the AMD Athlon 64 processor helps ensure superior performance on today's software with complete readiness for the coming wave of 64-bit computing. With AMD64 technology, customers can embrace the new capabilities of 64-bit computing on their own terms and achieve compatibility with existing software and operating systems.

Industry-leading performance for today's software

The revolutionary architecture of the AMD Athlon 64 processor enables industry-leading performance to help maximize productivity and deliver a true-to-life digital entertainment experience. HyperTransport™ technology can increase overall system performance by removing I/O bottlenecks, increasing system bandwidth, and reducing system latency. A fully integrated DDR memory controller helps speed access to memory by offering the processor a direct connection to the main memory. As a result, end users can enjoy quicker application loading, better multi-tasking, and extraordinary application performance.

With 3DNow!™ Professional technology and support for SSE2, the AMD Athlon 64 processor has more ways to accelerate multimedia applications, enabling stellar performance when working with audio, video, and photography software. For a superior experience with high-speed Internet, the AMD Athlon 64 processor combines high-speed memory access and I/O connectivity to help ensure that end users can fully take advantage of a broadband connection to streaming video and audio, and a riveting online gaming experience.

Ready for the 64-bit future

The AMD Athlon 64 processor is designed for people who want to stay at the forefront of technology and for those who depend on their PCs to keep them connected, informed, and entertained. Systems based on AMD Athlon 64 processors are able to deliver leading-edge performance for demanding productivity and entertainment software today and in the future.

With AMD64 technology, the AMD Athlon 64 processor is fully compatible with existing software, while enabling a seamless transition to upcoming 64-bit applications. Both 32- and 64-bit applications can run simultaneously and transparently on the same platform. AMD64 technology enables new, cinematic-computing experiences and capabilities, in addition to increased performance. AMD64 technology allows end users to take advantage of new innovations such as real-time encryption, more life-like games, accurate speech interfaces, cinema-quality graphic effects, and easy-to-use video and audio editing.



Founded in 1969, AMD has shipped more than 240 million PC processors worldwide. Customers can depend on the AMD Athlon 64 Processor and AMD for compatibility and reliability. AMD processors undergo extensive testing to ensure compatibility with Microsoft Windows XP, Windows 98, Windows ME, Windows NT, Windows 2000, as well as Linux and other PC operating systems. AMD works collaboratively with Microsoft and other partners to achieve compatibility of AMD processors and to expand the capability of software and hardware products leveraging AMD64 technology. AMD conducts rigorous research, development, and validation to help ensure the continued integrity and performance of its products.

Protect investments with a technically superior PC processor

The AMD Athlon™ 64 processor is the world's most technically advanced PC processor and the only Windows-compatible 64-bit PC processor. Advanced technologies in the AMD Athlon 64 processor include:

- AMD64 technology which doubles the number of processor registers and dramatically increases the system memory addressability
- Enhanced multimedia instructions support including 3DNow! Professional technology and SSE2
- 1600MHz system bus using HyperTransport™ technology with up to 9.6GB/sec total processor-to-system bandwidth
- An integrated memory controller with peak memory bandwidth of up to 3.2GB/sec, supporting PC3200, PC2700, PC2100, or PCI600 DDR SDRAM
- The industry's largest PC cache memory system (1 megabyte L2 cache) to speed up memory access and reduce processor bottlenecks
- Native execution of 32-bit software, allowing today's PC software to provide leading-edge performance while enabling a seamless migration to 64-bit software

The combination of these innovations and features provides customers with performance they need along with tremendous flexibility. Customers can experience outstanding performance running today's applications and prepare for the next generation of software without having to upgrade or change hardware. For business customers, this extends system life cycles, simplifies technology transition and reduces total cost of ownership.

Purchase with confidence

The AMD Athlon 64 processor is the only industry standard x86 processor with the ability to move beyond the limits of 32-bit computing. The AMD Athlon 64 processor is compatible with Microsoft Windows XP and tens of thousands of PC applications that people around the world use every day. The award-winning AMD Athlon XP processor won over 100 industry accolades and was the first 1.0GHz PC processor. Now, the AMD Athlon 64 processor reaches a new milestone by building a path to 64-bit computing for millions of PC users.

About AMD

Founded in 1969 and based in Sunnyvale, California, AMD (NYSE: AMD) is a global supplier of integrated circuits for the personal and networked computer and communications markets with manufacturing

facilities in the United States, Europe, Japan, and Asia. AMD, a Standard & Poor's 500 company, produces microprocessors, Flash memory devices, and silicon-based solutions for communications and networking applications.

For more information, please visit <http://www.amd.com/amdathlon64>

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